

Status Summary

Claims 1-5, 8, 9, 12-14, 16, 23, and 30 are pending in the present application. All of these claims presently stand rejected. By the above amendments, claims 1, 12 and 23 have been amended to more particularly define the subject matter of each claim. No new matter has been added.

Claim Objections

Claim 12 stands objected to. The Examiner states that claim 12 is drawn to a combination of the head assembly and the cutting mechanism but that the cutting mechanism is still recited as if it were just an intended use. The Examiner therefore suggests that appropriate correction would include changing "for" to --and-- on line 6 and changing "for use with" to --and-- on line 1.

Per the Examiner's suggestion, claim 12 has been amended to replace the word "for" on line 6 with the word "and" in order to positively recite the cutting mechanism. However, since the claim is merely directed to a trimmer head assembly for use with a power vegetation trimmer (the trimmer of which can include a motor, drive shaft, etc.) and the power vegetation trimmer is not positively recited in the claim, applicants respectfully disagree that the words "for use with" on line 1 should be replaced with the word "and".

Since the language of claim 12 has been amended in order to positively recite the cutting mechanism as part of the head member of the trimmer head assembly, it is respectfully requested that the objection to claim 12 be withdrawn.

Rejections Under 35 U.S.C. § 102

U.S. Patent No. 5,423,126 to Byrne

Claims 1, 2, 5, 12-14, 16, 23 and 30 presently stand rejected by the Examiner under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,423,126 to Byrne (hereinafter "Byrne"). The Examiner states that Byrne discloses a head assembly having a first lateral wall (e.g. 35 or 16 or 48 or 55), a first transverse shield wall (e.g. 20 or 34 etc.), and a second lateral wall (7) having an annular gap filled by a hollow sleeve member or adaptor member (10), a shaft (2), and a cutter (6) having an annular rim (5).

Byrne discloses a flexible flail trimmer with a cutting head 5 from which a flexible flail 6 extends to act as a cutting device. A guide and cutting guard 4 is attached at the lower end of a handle shaft 2 by a clamp collar 7 in cooperation with a bushing 10 such that guide and guard 4 can rotate around handle shaft 2 independently of flexible drive shaft 3 and cutting head 5. As disclosed in Byrne, the combined guide and guard 4 is generally in the shape of a truncated cone 20 having a circumferential lip 21 that extends radially outwardly from the base of truncated cone 20. As described specifically with respect to Figure 2, flexible flail 6 extends from cutting head 5 and rotates in a plane immediately outboard of a plane defined by outboard surface 24 of circumferential lip 21.

The Examiner contends that the first lateral wall of the presently claimed subject matter could be reference number 35, 16, 48 or 55 of Byrne. Applicants note that reference numbers 35 (see Figure 4), 48 (see Figures 5A and 5B), and 55 (see Figures 6A and 6B) all extend around and past the location on cutting head 5 from which flexible flail 6 extends. As such, the “walls” defined by reference numbers 35, 48, and 55 all extend around and past the transverse axis along which flexible flail 6 extends. This extension feature of 35, 48, and 55 is designed as such in order to provide a user debris shield as known in the art and a function unrelated to the shield function of the present subject matter which is related to preventing or at least minimizing contact between vegetative matter and a rotating output shaft. Also, it is noted with respect to the “wall” defined by reference number 16, as shown in Figures 1 and 2 of Byrne, that 16 as of the outer surface of ring 13 extends upperwardly from cone 20 away from the transverse axis along which flexible flail 6 extends. This feature of 16 is designed as such in order to provide a guide surface for vertical indexing during the edging operation, a function completely unrelated to the shield function of the present application.

By the above amendments, independent claim 1 has been amended to recite a shield apparatus for positioning over a cutting mechanism of a type comprising a cutting element location disposed along a transverse axis for positioning of a cutting element. Claim 1 has further been amended to recite that a first transverse shield wall adjoins a first lateral wall wherein the first lateral wall extends from the first

transverse shield wall in a first direction toward the transverse axis for terminating above the transverse axis of the cutting mechanism.

Independent claim 12 has been amended as indicated above and now positively recites a cutting mechanism attached to an output shaft wherein the cutting mechanism comprises a cutting element location disposed along a transverse axis for extension of a cutting element externally from the cutting mechanism. Claim 12 has additionally been amended to recite that a transverse shield wall of a shield is transversely disposed relative to a longitudinal axis and a first outer wall of the shield extends from the transverse shield wall in a direction toward the transverse axis and terminates above the transverse axis while circumscribing, above the cutting element location, at least a portion of the cutting mechanism by a distal annular gap.

As indicated above, independent claim 23 has been amended to recite a trimmer assembly comprising a cutting mechanism attached to the output shaft and rotatable therewith, wherein the cutting mechanism has a cutting element location disposed along a transverse axis for extension of a cutting element externally from the cutting mechanism. Claim 23 has further been amended to more particularly define a shield as comprising a first transverse shield wall adjoining and extending from a first lateral wall toward the output shaft, the first lateral wall extending from the first transverse shield wall in a direction toward the transverse axis. Claim 23 has further been amended to define the first lateral wall as terminating above the transverse axis.

The amendments made herein to independent claims 1, 12, and 23 are supported within the specification and drawings as originally filed. For example, page 16, lines 8-11 of the original specification describes that “first lateral wall 51 is adjacent to only an upper or proximal section of cutting mechanism CM so as not to interfere with the rotation of cords C”. As such, the shield of the present subject matter, including the structure of the first lateral wall as presently claimed, is structurally and functionally different from the “walls” defined by reference numbers 35, 16, 48, and 55 in Byrne.

In addition to distinctions described in the previously filed Amendment B, applicant respectfully submits that there is no teaching or suggestion in Byrne of a shield apparatus for positioning over a cutting mechanism of a power vegetation trimmer that includes a first lateral wall extending from a first transverse shield wall in a first direction toward a transverse axis of a cutting element of the cutting mechanism. There is also no teaching or suggestion in Byrne of a first lateral wall of the shield that terminates above the transverse axis.

As described above, in order to shield the user from debris, the “walls” defined by reference numbers 35, 48, and 55 in Byrne all extend around and past (i.e., are not adapted to and do not terminate above) the transverse axis along which flexible flail 6 extends in order to provide a user debris shield as known in the art. Also, the “wall” defined by reference number 16 in Byrne extends from cone 20 in a direction away from the transverse axis along which flexible flail 6 extends in order to provide a guide surface for vertical indexing. These structural features and functions of Byrne

are unrelated to the shield structure and function of the present subject matter, which provides a first lateral wall that terminates above a transverse axis of a cutting element location so as to not interfere with rotation of the cutting element while preventing or at least minimizing contact between vegetative matter and a rotating output shaft.

In light of the above amendments and remarks with respect to independent claims 1, 12 and 23, it is respectfully submitted that the rejections of claims 1, 2, 5, 12-14, 16, 23 and 30 under 35 U.S.C. §102(b) based upon Byrne should now be withdrawn.

U.S. Patent No. 5,414,934 to Schlessmann

Claims 1, 2, 5, 8, 12-14, 16, 23 and 30 presently stand rejected by the Examiner under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,414,934 to Schlessman (hereinafter "Schlessman"). The Examiner states that Schlessman shows a head assembly having a first lateral wall (e.g. 13), a first transverse shield wall (e.g. 19), a second lateral wall (e.g. 46) having an annular gap filled by a hollow sleeve member or adaptor member (e.g. 17), a coaxial adaptor wall (18), a shaft (e.g. 15), and a cutter (23) having an annular rim (22).

Schlessman discloses a vegetation cutter apparatus with a cutterhead 7 that constitutes the cutting mechanism for containing and dispensing cutting filament 23 (which is dispensed as filament segment 8 that acts as the cutting tool). Base housing 13 of cutterhead 7 is a part of the cutting mechanism and contains pass-

through opening 50 for allowing filament segment 8 to pass therethrough. Base housing 13 therefore extends past the transverse axis along which the external cutting filament extends.

The Examiner contends that the first lateral wall of the presently claimed subject matter could be 13 of Schlessman. Applicants note that base housing 13 of Schlessman, while comprising lateral and transverse walls (including end face of housing 19), is designed to house cutting filament 23, spring 24, and other working parts of cutterhead 7. Cutterhead 7 of Schlessman, including the base housing 13, is an example of a cutting mechanism that the shield apparatus of the present application is designed to be used with and is similar to the cutting mechanism CM described in the present application (and which also can house spooled filament, biasing spring, etc.). While Schlessman teaches a prior art shield 9 for protection of the user from debris, Schlessman fails to teach or suggest any shield apparatus for positioning over cutterhead 7 as is described in the present application.

As described in detail above, independent claim 1 has been amended to recite a shield apparatus for positioning over a cutting mechanism of a type comprising a cutting element location disposed along a transverse axis for positioning of a cutting element. Claim 1 has further been amended to recite that a first transverse shield wall adjoins a first lateral wall wherein the first lateral wall extends from the first transverse shield wall in a first direction toward the transverse axis for terminating above the transverse axis of the cutting mechanism.

Claim 12 has been amended as described in detail above to positively recite a cutting mechanism attached to an output shaft wherein the cutting mechanism comprises a cutting element location disposed along a transverse axis for extension of a cutting element externally from the cutting mechanism. Claim 12 has additionally been amended to recite that a transverse shield wall of a shield is transversely disposed relative to a longitudinal axis and a first outer wall of the shield extends from the transverse shield wall in a direction toward the transverse axis and terminates above the transverse axis while circumscribing, above the cutting element location, at least a portion of the cutting mechanism by a distal annular gap.

Claim 23 has been amended as described in detail above to recite a trimmer assembly comprising a cutting mechanism attached to the output shaft and rotatable therewith, wherein the cutting mechanism has a cutting element location disposed along a transverse axis for extension of a cutting element externally from the cutting mechanism. Claim 23 has further been amended to more particularly define a shield as comprising a first transverse shield wall adjoining and extending from a first lateral wall toward the output shaft, the first lateral wall extending from the first transverse shield wall in a direction toward the transverse axis. Claim 23 has further been amended to define the first lateral wall as terminating above the transverse axis.

As described above, the base housing 13 of Schlessman is merely designed to house cutting filament 23, spring 24, and other working parts of cutterhead 7 and constitutes a cutting mechanism similar to CM of the present application. There is no teaching or suggestion in Schlessman of any shield apparatus for positioning over

cutterhead 7 as is described in the present application and the presently amended claims. Additionally, base housing 13 of Schlessman extends past the transverse axis along which cutting filament 51 extends, which is structurally and functionally different from the first lateral wall of the present subject matter which terminates above the transverse axis so as not to interfere with the rotation of the cutting cords of the cutting mechanism while preventing or at least minimizing contact between vegetative matter and a rotating output shaft.

In light of the above amendments and remarks with respect to independent claims 1, 12 and 23, it is respectfully submitted that the rejections of claims 1, 2, 5, 8, 12-14, 16, 23 and 30 under 35 U.S.C. §102(b) based upon Schlessman should now be withdrawn.

U.S. Patent No. 3,000,165 to Lill

Claims 1, 2, 5, 8, 12-14, 16, 23 and 30 presently stand rejected by the Examiner under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 3,000,165 to Lill (hereinafter "Lill"). The Examiner states that Lill shows a head assembly with a first lateral wall (e.g. 43), a first transverse shield wall (39), a second lateral wall (vertical side walls of 12) having an annular gap filled by a hollow sleeve member or adaptor member (21 or 22), a coaxial adaptor wall (23 or 24), a shaft (e.g. 15 or 16), and a cutter (28) having an annular rim (19).

Lill discloses a walk-behind push lawnmower with a housing 10 and a pair of discharge openings 41 and 42 formed in downwardly depending side walls 43 and

44. Since Lill discloses a lawnmower, it is clearly desirable for and taught by Lill that the housing extend downwardly at least to or past the transverse axis of the cutting blade or blades in order to protect the user from debris, a function unrelated to the shield function of the present subject matter which is related to preventing or at least minimizing contact between vegetative matter and a rotating output shaft.

As described in detail above, independent claim 1 has been amended to recite a shield apparatus for positioning over a cutting mechanism of a type comprising a cutting element location disposed along a transverse axis for positioning of a cutting element. Claim 1 has further been amended to recite that a first transverse shield wall adjoins a first lateral wall wherein the first lateral wall extends from the first transverse shield wall in a first direction toward the transverse axis for terminating above the transverse axis.

Claim 12 has been amended as described in detail above to positively recite a cutting mechanism attached to an output shaft wherein the cutting mechanism comprises a cutting element location disposed along a transverse axis for extension of a cutting element externally from the cutting mechanism. Claim 12 has additionally been amended to recite that a transverse shield wall of a shield is transversely disposed relative to a longitudinal axis and a first outer wall of the shield extends from the transverse shield wall in a direction toward the transverse axis and terminates above the transverse axis while circumscribing, above the cutting element location, at least a portion of the cutting mechanism by a distal annular gap.

Claim 23 has been amended as described in detail above to recite a trimmer assembly comprising a cutting mechanism attached to the output shaft and rotatable therewith, wherein the cutting mechanism has a cutting element location disposed along a transverse axis for extension of a cutting element externally from the cutting mechanism. Claim 23 has further been amended to more particularly define a shield as comprising a first transverse shield wall adjoining and extending from a first lateral wall toward the output shaft, the first lateral wall extending from the first transverse shield wall in a direction toward the transverse axis. Claim 23 has further been amended to define the first lateral wall as terminating above the transverse axis.

In addition to distinctions described in the previously filed Amendment B, there is no teaching or suggestion in LIII of a shield apparatus for positioning over a cutting mechanism of a power vegetation trimmer that includes a first lateral wall extending from a first transverse shield wall and terminating above a transverse axis of a cutting element of the cutting mechanism. As described above, the downwardly depending side walls 43 and 44 of LIII are designed to extend at least to or past (i.e., do not terminate above) the transverse axis of the cutting blade or blades in order to protect the user from debris. As described above, the first lateral wall of the present subject matter terminates above the transverse axis of the cutting element location so as not to interfere with the rotation of the cutting element while preventing or at least minimizing contact between vegetative matter and a rotating output shaft. As such, the shield of the present subject matter, including the structure of the first lateral wall

as presently claimed, is structurally and functionally different from the side walls 43 and 44 of Lill.

In light of the above amendments and remarks with respect to independent claims 1, 12 and 23, it is respectfully submitted that the rejection of claims 1, 2, 5, 8, 12-14, 16, 23 and 30 under 35 U.S.C. §102(b) based upon Lill should now be withdrawn.

Rejection Under 35 U.S.C. §103(a)

Claims 1-5, 8, 9, 12-14, 16, 23 and 30 presently stand rejected by the Examiner under 35 U.S.C. §103(a) as being unpatentable over Lill.

The Examiner states that in regard to claim 3, the first and second lateral walls of Lill are attached to the same transverse shield wall (39) instead of being attached to two integral transverse shield walls. The Examiner states, however, that there is no structural difference between a single transverse shield wall and two transverse shield walls that are integral with one another. The Examiner concludes that it would have it been obvious to one of ordinary skill in the art to have employed two integral transverse shield walls on Lill instead of one transverse shield wall.

Regarding claims 4 and 9, the Examiner states that bearings (22) have a hollow cylindrical portion, a first annular adaptor plate (bottom of 22) and presumably a second annular adaptor plate (top of 22). The Examiner states that since the second annular adaptor plate is not explicitly drawn, the Examiner takes official

notice that it is well known to have such annular adaptor plates at the lateral ends of bushings for the purpose of preventing axial sliding.

As noted above, Lill discloses a walk-behind push lawnmower with a housing 10 and a pair of discharge openings 41 and 42 formed in downwardly depending side walls 43 and 44. Since Lill discloses a lawnmower, it is clearly desirable for and taught by Lill that the housing extend downwardly at least to or past the transverse axis of the cutting blade or blades in order to protect the user from debris, a function unrelated to the shield function of the present subject matter.

As described in detail above, independent claim 1 has been amended to recite a shield apparatus for positioning over a cutting mechanism of a type comprising a cutting element location disposed along a transverse axis for positioning of a cutting element. Claim 1 has further been amended to recite that a first transverse shield wall adjoins a first lateral wall wherein the first lateral wall extends from the first transverse shield wall in a first direction toward the transverse axis for terminating above the transverse axis.

Claim 12 has been amended as described in detail above to positively recite a cutting mechanism attached to an output shaft wherein the cutting mechanism comprises a cutting element location disposed along a transverse axis for extension of a cutting element externally from the cutting mechanism. Claim 12 has additionally been amended to recite that a transverse shield wall of a shield is transversely disposed relative to a longitudinal axis and a first outer wall of the shield extends from the transverse shield wall in a direction toward the transverse axis and terminates

above the transverse axis while circumscribing, above the cutting element location, at least a portion of the cutting mechanism by a distal annular gap.

Claim 23 has been amended as described in detail above to recite a trimmer assembly comprising a cutting mechanism attached to the output shaft and rotatable therewith, wherein the cutting mechanism has a cutting element location disposed along a transverse axis for extension of a cutting element externally from the cutting mechanism. Claim 23 has further been amended to more particularly define a shield as comprising a first transverse shield wall adjoining and extending from a first lateral wall toward the output shaft, the first lateral wall extending from the first transverse shield wall in a direction toward the transverse axis. Claim 23 has further been amended to define the first lateral wall as terminating above the transverse axis.

There is no teaching or suggestion in Lill of, or motivation to provide, a shield apparatus for positioning over a cutting mechanism of a power vegetation trimmer that includes a first lateral wall extending from a first transverse shield wall and terminating above a transverse axis of a cutting element of the cutting mechanism. As described above, the downwardly depending side walls 43 and 44 of Lill are designed to extend at least to or past (i.e., do not terminate above) the transverse axis of the cutting blade or blades in order to protect the user from debris. In contrast, the first lateral wall of the present subject matter terminates above the transverse axis of the cutting element location so as not to interfere with the rotation of the cutting element while preventing or at least minimizing contact between vegetative matter and a rotating output shaft. As such, the shield of the present

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subject matter, including the structure of the first lateral wall as presently claimed, is structurally and functionally different from the side walls 43 and 44 of LIII.

In light of the above amendments and remarks with respect to independent claims 1, 12 and 23, it is respectfully submitted that the rejection of claims 1-5, 8, 9, 12-14, 16, 23 and 30 under 35 U.S.C. §103(a) based upon LIII should now be withdrawn.

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CONCLUSION

In light of the above amendment and remarks, applicants respectfully request favorable consideration of the claims. Should there be any minor issues outstanding in this matter, the Examiner is respectfully requested to telephone the undersigned attorney.

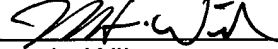
Deposit Account

The Commissioner is hereby authorized to charge any fees associated with the filing of this correspondence to Deposit Account Number 50-0426.

Respectfully submitted,

JENKINS, WILSON & TAYLOR, P.A.

Date: September 9, 2005

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JLW/EEM/alb